

ABSTRACT OF THE DISCLOSURE

A cutting balloon for use in a PTCA atherectomy procedure includes an elongated balloon that defines a longitudinal axis and is inflatable from a first deflated configuration to a second radially expanded configuration. One or
5 more incising elements are mounted on the inflatable balloon. Compressible sheaths made of a relatively low durometer, flexible material are mounted on the balloon to protect the operative cutting surface of a respective incising element during assembly of the cutting balloon and transit of the cutting
10 balloon to the treatment site. Each sheath extends farther from the longitudinal axis than the corresponding incising element and makes first contact with the tissue during a balloon inflation. Once contact has been established between the tissue and the sheath, further balloon inflation causes the sheath to radially compress between the tissue and the inflatable balloon exposing the operative cutting surface for tissue incision.